De rugchirurgie
in
verzekeringsgeneeskundig perspectief

"Comment is free, but facts are sacred "

Charles Prestwich Scott (1846 –1932), Manchester Guardian, May 5, 1921

Marc Du Bois MD, PhD

Inhoud

Rugchirurgie Trends in operatiecijfers	Rugchirurgie Keuze ingreep en resultaat	Rugchirurgie Arbeidsonge-schiktheid
1. Feiten 2. Bespreking	1. Feiten 2. Bespreking	1. Feiten 2. Bespreking

MATERIAAL EN METHODE

- ❑ Retrospectief
- ❑ Administratieve databank
- ❑ Nomenclatuur
- ❑ Follow-up 1 jaar
- ❑ Logistische regressie analyse

Spinal fusions serve as case study for debate over when certain surgeries are necessary

By Peter Whoriskey and Dan Keating October 27, 2013

By some measures, Federico C. Vinas was a star surgeon. He performed three or four surgeries on a typical weekday at the Daytona Beach, Fla., hospital that employed him, and a review showed him to be nearly **five times as busy** as other neurosurgeons. The hospital paid him hundreds of thousands in incentive pay. In all, he earned as much as $1.9 million a year.

Yet given his productivity, some hospital auditors wondered: Was all of the surgery really necessary?

To answer that question, the **hospital in early 2010 paid for an independent review** of cases in which Vinas and two other neurosurgeons had performed a common procedure known as a spinal fusion. The review was conducted by board-certified neurosurgeons working for AllMed, a company accredited to audit health-care businesses.

Of 10 spinal fusions by Vinas that were selected, nine were deemed not medically necessary, according to a summary of the report.

Rate of Spine Surgery Soars

By Jilian Mincer Feb. 15, 2011

A recent study of Medicare patients found that the rate of traditional, decompression surgery for stenosis declined slightly in the period from 2002 to 2007. But the **rate of complex surgery rose 15-fold in that period to 19.9 per 100,000 surgeries from 1.3 per 100,000**

Rugchirurgie: trends in operatiecijfers

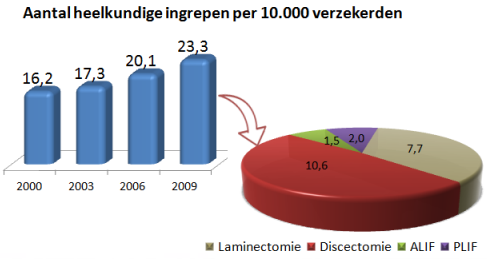
O tempora, o mores !

Code of Hammurabi, 1750 BC

If a physician make a large incision with an operating knife and cure it, or if he open a tumor (over the eye) with an operating knife, and saves the eye, he shall receive ten shekels in money

If a physician make a large incision with the operating knife, and kill him, or open a tumor with the operating knife, and cut out the eye, his hands shall be cut off.

Rugchirurgie: trends in operatiecijfers



Du Bois, M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: trends in operatiecijfers

TABLE 1. NUMBER AND RATE OF LUMBAR SPINE SURGERY PROCEDURES BY YEAR (PER 10.000 BENEFICIARIES)

	Laminectomy		Posterior interarticular fusion		ALIF		PLIF		Standard discectomy		Combined discectomy and fusion		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
2000	1524	3,4	67	0,1	372	0,8	624	1,4	4319	9,6	394	0,9	7300	16,2
2001	1528	3,4	82	0,2	394	0,9	664	1,5	3820	8,5	434	1,0	6922	15,4
2002	1648	3,7	102	0,2	361	0,8	705	1,6	4084	9,1	464	1,0	7364	16,3
2003	1879	4,2	98	0,2	468	1,0	676	1,5	4143	9,2	532	1,2	7796	17,3
2004	1981	4,4	62	0,1	604	1,3	713	1,6	4168	9,2	569	1,3	8097	18,0
2005	2321	5,2	74	0,2	682	1,5	752	1,7	4199	9,3	564	1,3	8592	19,1
2006	2470	5,5	114	0,3	675	1,5	840	1,9	4404	9,8	562	1,2	9065	20,1
2007	2898	6,4	111	0,2	598	1,3	848	1,9	4594	10,2	634	1,4	9683	21,5
2008	3323	7,4	119	0,3	599	1,3	847	1,9	4607	10,2	608	1,3	10103	22,4
2009	3489	7,7	139	0,3	662	1,5	888	2,0	4736	10,6	586	1,3	10520	23,3
	129%		*107%*		*78%*		*42%*		*10%*		*49%*		*44%*	

Fusieoperatie : +56%

Du Bois, M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Trends in operatiecijfers: internationale vergelijking

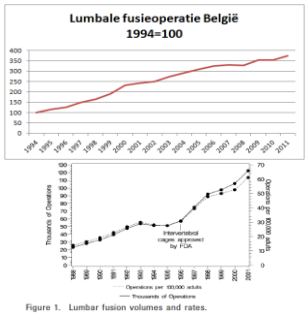
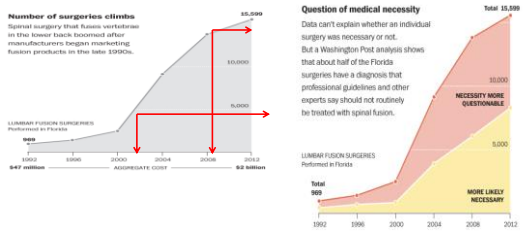


Figure 1. Lumbar fusion volumes and rates.

Deyo RA, Gray DT, Kreuter W, Mirza S, Martin BI.United States trends in lumbar fusion surgery for degenerative conditions. Spine (Phila Pa 1976). 2005 Jun 15;30(12):1441-5; discussion 1446-7.

Trends in operatiecijfers: internationale vergelijking

A Florida case study in surgical necessity

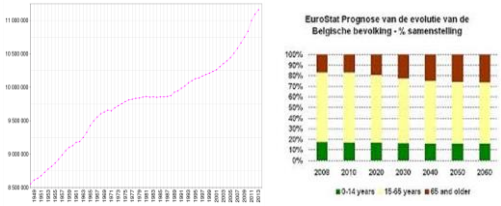


Fusieoperatie : +350%

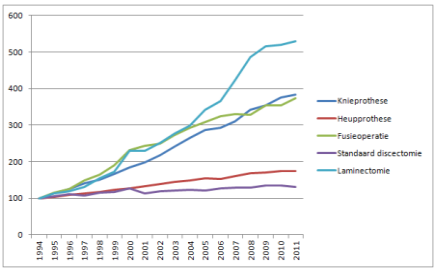
Fusion surgery : U.S. 150 per 100,000 : België : 50 per 100,000
(onderschatting : ALIF, PLIF, Lumbale arthrodese, quid laminectomie?)

Peter Whoriskey and Dan Keating. Washington Post. Spinal fusions serve as case study for debate over when certain surgeries are necessary, October 27, 2013

Trends in operatiecijfers: vraagzijde



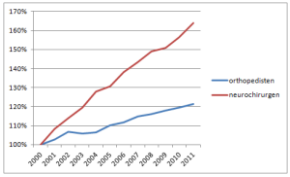
Trends in operatiecijfers: vraagzijde 1994=100



Trends in operatiecijfers: aanbodzijde

Tabel 3 - Aantal actieve beroepsbeoefenaars met een geattesteerde praktijk per specialisme/beroep - Evolutie 2003-2011

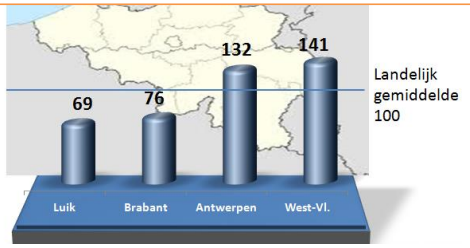
Specialismen/beroepen	2003	2004	2005	2006	2007	2008	2009	2010	2011	Jaarlijkse gemiddelde evolutie
Orthopedisten	823	828	857	869	893	902	917	930	943	1,72%
Neurochirurgen	129	138	141	149	155	161	163	169	177	4,03%



per 100000 inw	nl	b	usa
neurochirurgen	0,76	1,61	1,54
orthopedisten	4,09	8,57	8,72

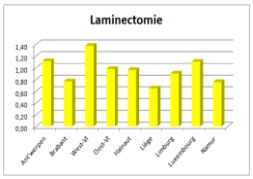
Nederland 2012:
neurochirurgen : 130
orthopeden : 695
1 neurochirurg per 130000 (NL)
1 neurochirurg per 60000 (B)

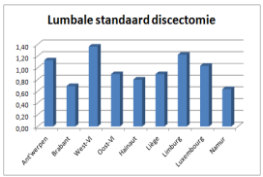
Trends in operatiecijfers: interregionale variabiliteit Relatief aantal rugoperaties per provincie (B)



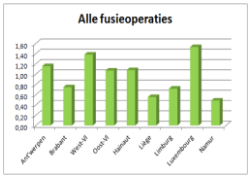
Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

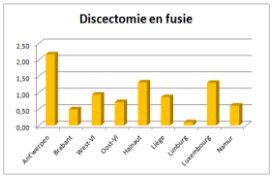
Trends in operatiecijfers: interregionale variabiliteit Relatief aantal rugoperaties per provincie (2011)



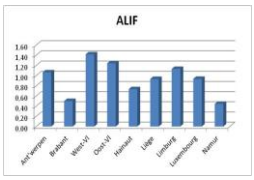


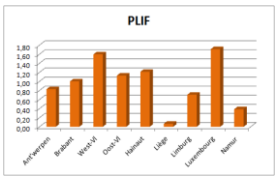
Trends in operatiecijfers: interregionale variabiliteit Relatief aantal rugoperaties per provincie (2011)



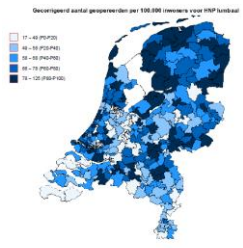


Trends in operatiecijfers: interregionale variabiliteit Relatief aantal rugoperaties per provincie (2011)





Trends in operatiecijfers: interregionale variabiliteit Relatief aantal rugoperaties per provincie (NL)



Trends in operatiecijfers: interregionale variabiliteit
Relatief aantal rugoperaties per provincie (USA)

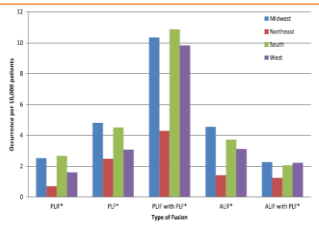
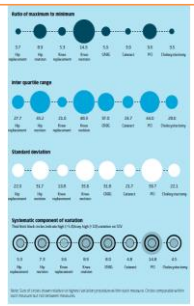


Fig. 5. Regional trends in rates of fusion. *p<.05. ALIF, anterior lumbar interbody fusion; PLF, posterolateral fusion; PLIF, posterior lumbar interbody fusion.

Kepler CK1, Vaccaro AR, Hilibrand AS, Anderson DG, Rihn JA, Albert TJ, Radcliff KE. National trends in the use of fusion techniques to treat degenerative spondylolisthesis. Spine (Phila Pa 1976). 2014 Sep 1;39(19):1584-9.

Trends in operatiecijfers: interregionale variabiliteit
Belang van de variatiecoefficiënt



"The coefficient of variation in surgery rates was similar when comparing total hip arthroplasty (21,3) with standard discectomy (25,6) and laminectomy (26,2) and below the magnitude of variability in rates of fusion (at least 55,1) "

Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Trends in operatiecijfers: Expert opinion

"…In 2011, Epstein and Hood prospectively evaluated 274 patients with cervical or lumbar complaints who were seen as first or second opinions over a one year period; **at least 17.2%** of patients were told by prior spine surgeons that they needed spinal operations that the second opinion surgeon (author) determined **were "unnecessary" and often very extensive. …"**

Epstein NE, Hood DC. "Unnecessary" spinal surgery: A prospective 1-year study of one surgeon's experience. Surg Neurol Int. 2011;2:83.

"…For patients seen in second opinion, 111 **(60.7%) were told by outside surgeons that they required "unnecessary", 61 (33.3%) the "wrong",** or 11 (6%) the "right" operations…"

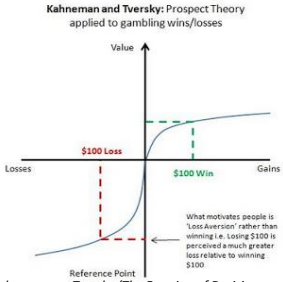
Epstein NE.Surg Neurol Int. 2013 Oct 29;4(Suppl 5):S353-8. Are recommended spine operations either unnecessary or too complex? Evidence from second opinions.

Trends in operatiecijfers: Expert opinion

"…Subsequently in 2012, over a 14-month period, Gamache prospectively evaluated 240 consecutive patients seeking first (85 or 35%) or secondary (155 or 65%) opinions regarding the need for spine surgery. More critically, of the 155 patients coming in for second to fourth surgical opinions, where one or more previous surgeons recommended operations**, he advised no surgery in 69 (44.5%) patients.** …"

Gamache FW. The value of "another" opinion for spinal surgery: A prospective 14-month study of one surgeon's experience. Surg Neurol Int. 2012;3(Suppl 5):S350–4.

Trends in operatiecijfers: Shared decision making



Mensen zijn niet altijd rationeel bij het maken van keuzes. Het gaat er bijvoorbeeld om dat mensen zekerheid prefereren wanneer het om winst gaat (bijvoorbeeld toegenomen levensverwachting), maar juist meer onzekerheid wordt geaccepteerd wanneer het gaat om het vermijden van een verlies (bijvoorbeeld het risico te sterven tijdens een operatie). Ook hechten mensen meer waarde aan proportionele dan aan absolute verschillen.

Kahneman en Tversky (The Framing of Decisions and the Psychology of Choice: Science 1981;211:453-458
Verma AA, Razak F, Detsky AS. Understanding Choice. Why Physicians Should Learn Prospect Theory. JAMA. 2014;311(6):571-572

Rugchirurgie: opties en resultaten

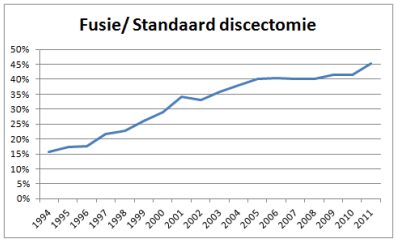
Unfortunately for modern medicine the case is incomplete

Edwin Smith papyrus, 1600 BC

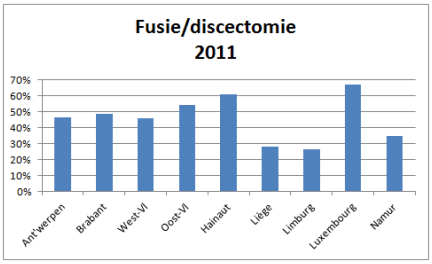
TITLE
Instructions concerning a sprain of a vertebra [in] his spinal column.

TREATMENT
Thou shouldst place him prostrate on his back; thou shouldst make for him…

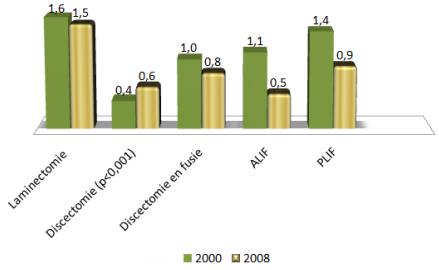
Rugchirurgie: opties en resultaten



Rugchirurgie: opties en resultaten

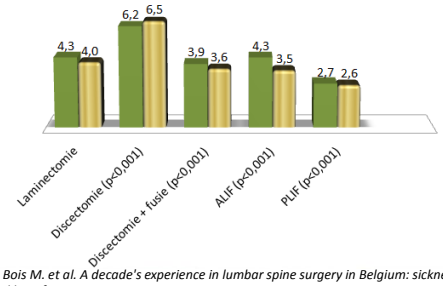


Rugchirurgie: opties en resultaten Mortaliteit binnen het jaar (%)



Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: opties en resultaten Heringreep binnen het jaar (%)



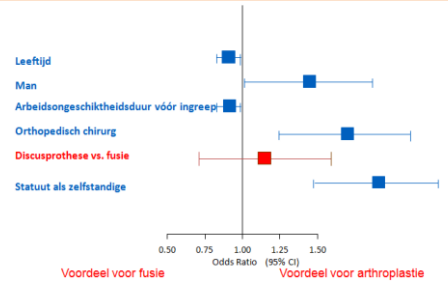
Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: opties en resultaten Heringreep binnen het jaar (%)

Variable	Heringreep	Mortaliteit
Leeftijd	0.99* (0,99-1,00)	1,08* (1,07-1,09)
Vrouw	1,12* (1,05-1,20)	0,54* (0,46-0,62)
Henegouwen vs. Antwerpen	0.70* (0,58-0,83)	1,45* (1,08-1,94)
2008 vs. 2000	1,00 (0,87-1,16)	0,83 (0,60-1,15)
1-3 maand arbeids-ongeschikt vóór HK		

Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

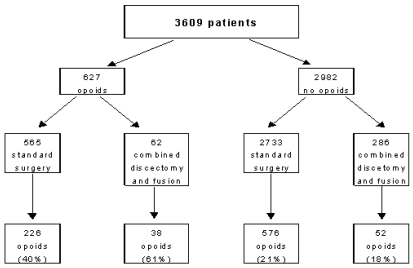
Rugchirurgie: opties en resultaten Discusprothese vs. lumbale fusie



Du Bois M. et al. (2007). Outcome and cost of lumbar disc replacement versus lumbar fusion. In: Szpalski et al. (eds.), Nonfusion technologies in spine surgery. p. 279-283.

Rugchirurgie: opties en resultaten

2. Use of opoids 3 months before and 3 months after surgery for lumbar disc herniation (retrospective cohort of patients operated on in 2001)



Opties en resultaten: The evidence

Contents lists available at ScienceDirect
Best Practice & Research Clinical Rheumatology
journal homepage: www.elsevierhealth.com/berh
9

Evidence for surgery in degenerative lumbar spine disorders

Wilco C.H. Jacobs [a,1], Sidney M. Rubinstein [b,2], Bart Koes [c,3], Maurits W. van Tulder [b,d,e], Wilco C. Peul [a,c,*]

Practice points

- Surgery leads to short-term sciatic pain relief for herniated discs compared to conservative treatment; however, there is no difference at the 1-year follow-up.
- IPDs lead to superior outcome compared to conservative treatment for spinal stenosis, but cost effectiveness compared to simple decompression should be assessed.
- Fusion leads to better clinical outcome compared to decompression for degenerative lumbar spondylolisthesis.
- Disc replacement does not lead to a clinically relevant improvement of pain and disability compared to fusion surgery for degenerative disc disease.
- As fusion surgery does not lead to better outcomes compared to conservative treatment for patients with LBP sec, one might question if surgery is an appropriate intervention.

Opties en resultaten: RCT

"Knowledge advances not by repeating known facts but by refuting false dogmas" Karl Popper (1902 – 1994)

Populatie, inclusiecriteria, informed consent

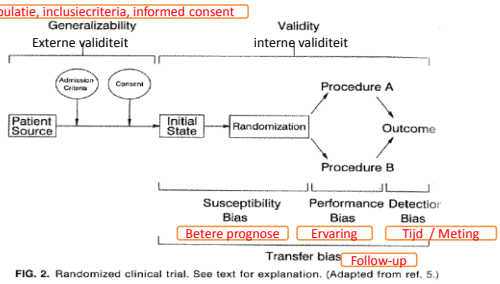
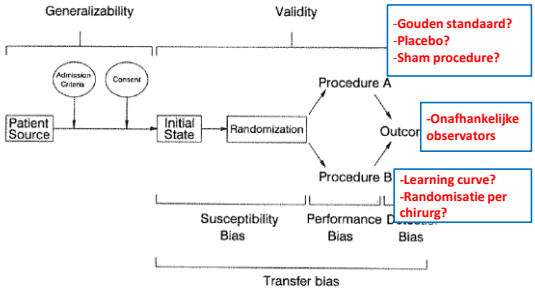


FIG. 2. Randomized clinical trial. See text for explanation. (Adapted from ref. 5.)

L'Abbé KA, Detsky AS, O'Rourke K. Meta-analysis in clinical research. Ann Intern Med. 1987 Aug;107(2):224-33. Review.

Opties en resultaten: RCT



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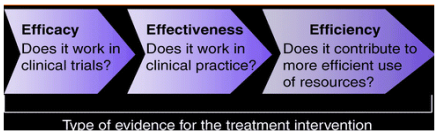
L'Abbé KA, Detsky AS, O'Rourke K. Meta-analysis in clinical research. Ann Intern Med. 1987 Aug;107(2):224-33. Review.

Opties en resultaten: NNT



Bv. Noodzaak tot dichotomisering outcome : 60% INV naar 40% INV : SS of klinisch relevant
= 40%/60% = 30% daling INV
= (60%-40%) = 20% absolute daling INV
=20/100 = NNT: 5
Lage effectiviteit = hoog NNT dus noodzaak van hogere power RCT : kostprijs +++
Idee over efficiëntie via NNT× kost per ingreep

Lam RW, Annemans L. Efficacy, Effectiveness and Efficiency of Escitalopram in the Treatment of Major Depressive and Anxiety.Expert Rev Pharmacoeconomics Outcomes Res. 2007;9(6):559-576

Opties en resultaten: Complicaties

-Zo hoge effectiviteit : complicaties komen niet tot uiting in RCT want te lage power.

-Inclusiecriteria dikwijls te stringent.

-Oplossing : Post Marketing Surveillance .

-Streven naar meer dan non-inferiority (equivalentie) in RCT gezien onzekerheid.

Opties en resultaten: Evidence vs. eminence

Basis of clinical practice

Basis for clinical decisions	Marker	Measuring device	Unit of measurement
Evidence	Randomised controlled trial	Meta-analysis	Odds ratio
Eminence	Radiance of white hair	Luminometer	Optical density
Vehemence	Level of stridency	Audiometer	Decibels
Eloquence (or elegance)	Smoothness of tongue or nap of suit	Teflometer	Adhesin score
Providence	Level of religious fervour	Sextant to measure angle of genuflection	International units of piety
Diffidence	Level of gloom	Nihilometer	Sighs
Nervousness	Litigation phobia level	Every conceivable test	Bank balance
Confidence*	Bravado	Sweat test	No sweat

*Applies only to surgeons.

BMJ VOLUME 319 18-25 DECEMBER 1999 www.bmj.com

Opties en resultaten
Evidence, eminence en common sense (USA)

NASS NORTH AMERICAN SPINE SOCIETY

DEFINING APPROPRIATE COVERAGE POSITIONS

Discectomy is **NOT** indicated in cases that do not fall within the above parameters. In particular discectomy is not indicated for treatment of:

- Isolated axial pain in the presence of a disc herniation
- predominant low back pain associated with disc degeneration with or without annular tears in the absence of a disc herniation
- patients who are asymptomatic with a normal physical exam regardless of the size of the disc herniation

Opties en resultaten
Evidence, eminence en common sense (USA)

NASS NORTH AMERICAN SPINE SOCIETY

DEFINING APPROPRIATE COVERAGE POSITIONS

Lumbar fusion is **NOT** indicated in cases that do not fulfill the above criteria. Of note, lumbar fusion is not indicated in the following scenarios:

- **Disc herniations:**
  - as an adjunct to primary excision of a central or posterolateral disc herniation at any level in the absence of instability or spondylolisthesis
- **Stenosis:**
  - As an adjunct to primary decompression of central and/or lateral recess stenosis in the absence of instability, foraminal stenosis, spondylolisthesis
- **Discogenic low back pain:**
  - Any case that does not fulfill ALL of the above criteria
  - Presence of advanced multi-level degeneration (2 or more levels) on a preoperative MRI and plain radiographs
  - Significant psychiatric disorder
  - Smoking

Opties en resultaten
Evidence, eminence en common sense (USA)

NASS NORTH AMERICAN SPINE SOCIETY

DEFINING APPROPRIATE COVERAGE POSITIONS

Lumbar Disc Arthroplasty is **NOT** indicated in ANY of the following scenarios:

- Any case that does not fulfill ALL of the above criteria
- Presence of advanced multi-level degeneration (2 or more levels) on a preoperative MRI and plain radiographs
- Significant psychiatric disorder
- Significant facet arthropathy at the operated level
- Age greater than 60 years or less than 18 years
- Presence of infection or tumor
- As an adjunct to the treatment of primary central or far-lateral disc herniation
- Above or below or in combination with a spinal fusion or other stabilizing-type procedure
- Disease above L4-5

Opties en resultaten
Evidence, eminence en common sense
Discusprothese (B)

De verzekeringstegemoetkoming geldt voor de rechthebbenden :

- vanaf 35 jaar;
- die zonder succes meer dan 6 maanden conservatief behandeld werden voor lage rugpijn ten gevolge van degeneratie op 1 of 2 discusniveaus die zich uit in ten minste één van de onderstaande afwijkingen :
  - osteofytformatie ter hoogte van de eindplaten;
  - mediane discushernia enkel op niveau L4-L5 of L5-S1;
  - gedocumenteerde discopathie.
- waarbij alle onderstaande en de achtereenvolgens uitgevoerde technische onderzoeken de diagnose van de degeneratie bevestigen :
  - RX, face en/of profiel;
  - flexie/extensie-opnames zonder verschuiving van meer dan 3 mm;
  - negatieve scintigrafie ter hoogte van de facetten;
  - MRI-onderzoek met tekenen van discusdegeneratie al dan niet gepaard gaande met Modicveranderingen;
  - falende facetbloks met lokaal anestheticum, zonder gebruik van corticoïden;
  - discografie en/of disco-CT, positief (pijnlijk) voor het te opereren niveau en negatief (niet pijnlijk) voor de aangrenzende niveaus.

Opties en resultaten
Evidence, eminence en common sense
Discusprothese (B)

Exclusiecriteria

- de patiënt heeft reeds een lumbale discusprothese;
- stenose van de laterale recessus of artrose van het neuroforamen;
- fracturen ter hoogte van de wervels;
- metabole ziekten die het wervellichaam brozer maken;
- spondylolyse;
- anterieure spondylolisthesis;
- lumbale en dorsolumbale scoliose;
- primaire niet mediane discushernia;
- tumor in situ;
- infecties;
- osteoporose gedocumenteerd met DEXA-scan;
- gedocumenteerde radiculopathie;
- residuele hoogte tussen de wervels kleiner dan 5 mm. »;

Opties en resultaten
Evidence, eminence en common sense

België : noodzaak tot herijking nomenclatuur
Discusprothese (?)
Fusieoperatie
Discus hernia

"…Niets is moeilijker, heeft minder kans van slagen, en is gevaarlijker om aan te pakken, dan het initiëren van een nieuwe orde. Want de hervormer heeft vijanden onder ieder die profiteert van de oude orde en slechts lauwe bijstanders onder hen die zouden profiteren van de nieuwe orde…"

Machiavelli
Il Principe
1513

Opties en resultaten
Evidence Biased Medicine in implantaten

Tabel 1. De volgorde van klinische ontwikkeling en timing van in de handel brengen van nieuwe hoogrisico hulpmiddelen in Europa en de VS.

	Theoretische opeenvolging in de tijd		
	Exploratoratieve klinische studies	**Bevestigende klinische studies (RCTs)**	**Health Technology Assessment**
CE systeem in Europa	Markt introductie gebaseerd op eenarmige studies die veiligheid en *performance* aantonen		Vereist gegevens rond veiligheid en werkzaamheid / doeltreffendheid voor een evaluatie
FDA PMA proces in de VS		Markt introductie gebaseerd op RCT met aantonen van veiligheid en *werkzaamheid/ doeltreffendheid*	

Opties en resultaten
Terugbetalingssysteem

-Interarticulaire arthrodesia achteraan, inclusief het nemen van de ent
N = 1,015943; 281632 281643 = N 450 = 457,17

-Arthrodesia tussen de wervellichamen, langs achter intraspinaal
N = 1,269918; 281676 281680 = N 625 = 793,70

-Heelkundige behandeling van een discushernia en arthrodesia, inclusief het eventueel nemen van de ent
N = 1,269918; 281794 281805 = N 625= 793,70

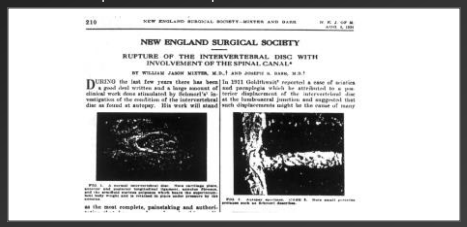
-Heelkundige behandeling van een andere discushernia dan een cervicale
N = 1,015943; 281772 281783 = N 450= 457,17

-Lumbale laminarthrectomie van meer dan twee niveaus wegens compressie van cauda equina ten gevolge van congenitale vernauwing (Syndroom van Verbiest) of verworven vernauwing van het ruggemergkanaal
K = 2,276905; 232794 232805 = K 400= 910,7

6

Rugchirurgie: arbeidsongeschiktheid

Ruptured disc : compensable backache



NEW ENGLAND SURGICAL SOCIETY

RUPTURE OF THE INTERVERTEBRAL DISC WITH INVOLVEMENT OF THE SPINAL CANAL*

Mixter, W.J. and Barr, J.S.: Rupture of the intervertebral disc with involvement of the spinal cord. *N Engl J Med* **211:** 210-214, 1934.

Rugchirurgie: arbeidsongeschiktheid

dS De Standaard

Koerswijziging voor KU Leuven

vrijdag 16 augustus 2013,

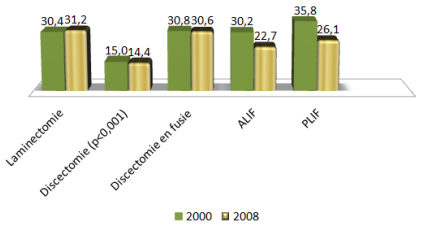
'Helft invaliden kan gewoon werken'

'Het aantal invaliden zou de helft lager kunnen liggen als er grondig gecontroleerd wordt.' Dat zegt rugchirurg Erik Van de Kelft van het AZ Nikolaas in Sint-Niklaas vrijdag in De Standaard.

'Ze komen hier en vragen letterlijk: help mij invalide te worden. Ze vinden dat ze in hun leven voldoende hebben bijgedragen aan de sociale zekerheid en dat het nu tijd wordt om het rustiger aan te doen', getuigt de rugchirurg in De Standaard.

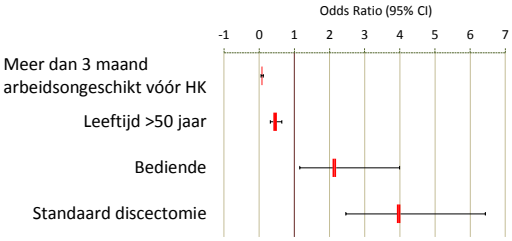
Van de Kelft heeft zelf al gemerkt dat een patiënt die volgens hem niets mankeert, toch invalide wordt verklaard. Nochtans had de rugarts de controlerend geneesheer van de ziekteverzekering laten weten dat hij geen medisch probleem kon vaststellen.

Rugchirurgie: arbeidsongeschiktheid 1 jaar na ingreep (%)



Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: arbeidsongeschiktheid 1 jaar na ingreep (%)



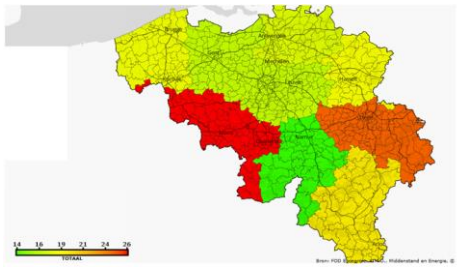
Du Bois M et al. (2004). Epidemiology, outcome and costs of surgery for lumbar disc herniation. In: Szpalski et al. (eds.), Degenerative disc disease. p. 313-320.

Rugchirurgie: arbeidsongeschiktheid 1 jaar na ingreep (%)

Variable	Arbeidsongeschikt
Leeftijd	1,05* (1,04-1,09)
Vrouw	1,49* (1,40-1,58)
Henegouwen vs. Antwerpen	1,52* (1,32-1,75)
2008 vs. 2000	0,82* (0,72-0,93)
1-3 maand arbeids-ongeschikt vóór HK	4,32* (4,02-4,64)

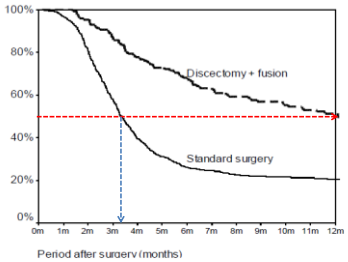
Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: Arbeidsongeschikten(> 1 jaar) / regio (%)



Du Bois M. et al. A decade's experience in lumbar spine surgery in Belgium: sickness fund beneficiaries, 2000-2009. Eur Spine J. Jun 21: p. 2693-2703.

Rugchirurgie: arbeidsongeschiktheid 1 jaar na ingreep (%)



Du Bois M, Donceel P (2004). Epidemiology, outcome and costs of surgery for lumbar disc hernation. Szpalski, M., Gunzburg, R. and Andersson, G. (eds.), Degenerative disc disease. Philadelphia: Lippincott Williams & Williams: p. 313-320

Rugchirurgie: arbeidsongeschiktheidsduur

1. Work Loss Data Institute : *Official Disability Guidelines*

722.52 Lumbar or lumbosacral intervertebral disc

722.6 Degeneration of intervertebral disc, site unspecified
Degenerative disc disease NOS
Narrowing of intervertebral disc or space NOS

"BEST PRACTICE" Disability Duration Guidelines
Mild cases, avoid strenuous activity: 0 days
Initial conservative medical treatment, clerical/modified work (bed rest): 3 days
Initial conservative medical treatment, manual work: 28 days
Laminectomy, clerical/modified work: 28 days
Laminectomy, manual work: 70 days
Lumbar fusion, clerical/modified work: 56 days
Lumbar fusion, manual work: 140 days

2. Dr. Reed : The Medical Disability Advisor: *Workplace Guidelines for Disability Duration.*

Lumbar spinal fusion

Job	Minimum	Optimum	Maximum
Sedentary	42	49	84
Light	56	63	84
Medium	70	77	112
Heavy	84	168	Indefinite
Very heavy	84	168	Indefinite

Lumber discectomy

Job	Minimum	Optimum	Maximum
Sedentary	3	14	35
Light	7	21	42
Medium	14	42	84
Heavy	35	49	112
Very Heavy	42	56	140

Arbeidsongeschiktheid
Risico, capaciteit en tolerantie

- **Risk**: basis for **physician** **imposed**
  "work restrictions" (line on forms).
  What the patient should NOT do, based on risk.
  - MAY NOT drive a commercial vehicle with epilepsy.
- **Capacity**: basis for **physician** **described**
  "work limitations" (line on forms)
  What the patient is **NOT** able to do.
  - **CANNOT** flex or abduct right arm at the shoulder more than 80º, thus **cannot** reach overhead controls on a factory press.

Arbeidsongeschiktheid
Risico, capaciteit en tolerantie

- **Tolerance**: basis for **patient decision** as to whether or not the **rewards** of work are **worth the "cost"** of the symptom.
  - What the patient **can do**, but **dislikes** doing, or **chooses not do**, because of symptoms.
  - **No place** to describe this on most return to work forms.
  - **Unique to each patient.** (Not predictable by the objective findings)

Arbeidsongeschiktheid
Risico, capaciteit en tolerantie bij fusieoperatie

RISK

Avoid heavy lifting of more than 10kg until 12 weeks post-operation
Contact sports should be avoided until 6 months check x-ray post-operatively unless otherwise stated.

CAPACITY

An appropriate graduated return to work should be planned for about 4-6 weeks. If possible, a part time return would be more appropriate, especially if there are prolonged amounts of travelling/sitting involved. If the job involves heavy manual work, the aim would be for a phased return by 12 weeks.

TOLERANCE

$$Motivation = \frac{Expectancy \times Value}{Impulsiveness \times Delay}$$

Arbeidsongeschiktheidsduur na rugchirurgie

Condition	Recommended return to non-manual	Recommended return to manual
Microdiscectomy	4 weeks	8 weeks[4,5,6,7]
		6-12 weeks
	6 weeks[8]	12 weeks[8]
Spinal decompression and fusion		3-6 months[4,5]

[4] Palmer KT, Greenough CG. Spinal disorders. In Palmer KT, Cox RAF and Brown I. (Eds) Fitness for Work 4th edn. Oxford University Press, Oxford 2007 pp 233-260.

[5] Carragee EJ, Han MY, Yang B, Kim DH, Kraemer H, Billys J. Activity restrictions after posterior lumbar discectomy. A prospective study of outcomes in 152 cases with no postoperative restrictions. Spine 1999;24:2346-51.

[6] Magnusson ML, Pope MH, Wilder DG, Szpalski M, Spratt K. Is there a rational basis for post-surgical lifting restrictions? 1. Current understanding. Eur Spine J 1999;8:170-8.

[7] Ostelo RWJG, de Vet HCW, Waddell G, Kerchoffs MR, Leffers P, van Tulder MW. Rehabilitation after lumbar disc surgery (Cochrane Review). In: The Cochrane Library, Issue 2. Oxford: Update Software, 2002.

[8] Royal College of Surgeons of England.

Besluit

Operatiecijfers	- Herijking nomenclatuur met criteria (NASS) - Evidence, eminence en common sense (db)
Resultaten	- RCT met NNT - Post- marketing toezicht (db)
Werkhervatting	-Lengte bepaalt rol van heelkunde -Richtlijnen (MTR)

"Good surgeons know how to operate, better surgeons when to operate, and the best when not to operate."

Richard Smith Editor, BMJ